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**PATENT APPLICATION**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Kazuhiro ASADA

Application No.: 09/899,919

Filed: July 9, 2001

For: OPTICAL CONNECTOR

Group Art Unit: 2871

Examiner: R. H. Kim

Docket No.: 110064

**REPLY BRIEF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In reply to the August 10, 2004 Examiner's Answer, please consider the following

remarks:

**I. Grouping of Claims**

Item (7) regarding Grouping of Claims: Appellant asserts that the Examiner's Answer incorrectly indicates that the claims 1-4 stand or fall together due to a lack of a statement and reasons for support thereof. Appellant explains that the reasons for the separate groupings are based on the separate features recited in the respectively grouped claims. These features are described in detail in the Argument in Part VI, pp. 10-19 of the Appeal Brief. See, in particular, the arguments separately presented in §§ VI.A.1, VI.A.2 and VI.A.3 of the Appeal Brief. This arrangement is consistent with the requirements of 37 CFR 1.192(c)(7).

**II. Claim Rejections**

Item (10) regarding the Claim Rejections: The Examiner's Answer asserts on pages 4 and 5 that Herrmann discloses blade portions, and further that "for the blade portions to be formed by a side edge of the positioning slit joined at a right angle to a distal end edge of the

plate-like portion” would be “an obvious matter of design choice to implement such a modification” to one having ordinary skill in the art at the time the invention was made. The Examiner’s Answer further asserts that “it appears that the invention would perform equally well with the chaffered [sic] edge disclosed in Herrmann and van Woesik”, because Appellant “has not disclosed that having the side edge... joined at a right angle to a distal end edge... solves any states [sic] problem or is used for any particular purpose...”

Appellant respectfully disagrees, asserting that although Herrmann discloses blade portions, these are chamfered, as are the blades taught by van Woesik. Neither applied reference teaches or suggests any motivation to modify the blade profile to provide a right-angle joint between side and distal end edges. Moreover, as explained in the Appeal Brief on page 11, the right angle corner avoids radial compression of the optical fiber. Neither van Woesik nor Herrmann addresses or provides solutions to mitigate this concern.

Regarding claim 3, the Examiner’s Answer asserts that projecting a gable edge along a thickness midline of the side edge for the blade portions would be an obvious modification to facilitate cutting. Appellant respectfully disagrees, asserting that there is no suggestion for such a modification in either of the applied references, and that the Examiner’s Answer merely asserts that a sharper edge to improve cutting renders Appellant’s gable edge feature as being obvious. On the contrary, such a gable edge introduces manufacturing complexities that require an explicit motivation to introduce, and thus cannot be obvious to one of ordinary skill in the art.

Further, under MPEP §2144.03, reliance on common knowledge “should be rare”, and have basis in indisputable facts “capable of such instant and unquestionable demonstration as to defy dispute.” *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6 (CCPA 1961). The Examiner’s Answer of “obvious matter of design choice” is not set forth as being such common knowledge, and is nowhere supported by the cited references.

### III. Response to Argument

Item (11) regarding the Response to Argument: The Examiner's Answer responds to Appellant's arguments by submitting that because the chamfered limbs of van Woesik and Herrmann "cut" through the covering portion, thereby preventing the "squeezing" force against the optical fiber. Further, the Examiner's Answer on page 8 asserts that "implementing a chamfered edge improves the ease of cutting...", and that the advantage of "a chamfered edge to create a cleaner cut is so well established (*i.e.*, guillotine)" that "by removing the chamfered edge... would actually be a step backward in the art." These represent new reasons, contrary to the 37 CFR §1.93(a)(2), which thereby justify Appellant's reply under subsection (b)(1).

Appellant respectfully disagrees with the assertions made in the Examiner's Answer, explaining that by cutting into the sheath at an oblique angle, induces compressive stresses on the optical fiber, and in addition can impose bending loads on the blades. Appellant does not contend that van Woesik and Herrmann fail to cut the cord sheath, but that Appellant's claimed features provide advantages in cutting and securing the cord by the claimed features, including those neither taught nor suggested by the applied references.

Further, in reply to the guillotine analogy, Appellant asserts that completely severing the cord (including the sheath and optical fiber) is entirely contrary to the objectives of Appellant's claimed features. Rather, the recited stopper has the purpose of retaining the cord in position within the housing. Any additional forces that the Examiner's Answer asserts to be required for pushing the recited blade portions through the cord merely affirms Appellant's assertion that these forces displace compressive stresses placed on the optical fiber by the chamfered blades of van Woesik and Herrmann.

The Examiner's Answer asserts that for the retention pips to engage the walls of the slots, the walls must equally engage the retention pips, and would therefore require retaining portions. Appellant replies that although van Woesik discloses retention pips on the clip,

there is no teaching for engagement counterparts on the housing, and that therefore, van Woesik fails to teach or suggest the housing retainer portions recited in Appellant's claims.

The Examiner's Answer asserts that the claim language is silent as to removing "material from a cord covering", but only recites that a portion of the covering portion (the sheath of the cord) is removed. Also, the Examiner's Answer asserts that by piercing the covering portion van Woesik and Herrmann both displace the covering portion creating a cut. Appellant respectfully replies that displacing the covering portion along the axial direction of the cord is distinguishable from removing a portion of the covering portion towards the transverse direction of the cord. Merely deforming and shifting the sheath substance whose space becomes occupied by the chamfered blades of van Woesik and Herrmann contrasts with removal of a "portion" of the covering portion that inherently removes material from that portion, as provided in claim 1.

Regarding claim 3, the Examiner's Answer asserts that the illustrations for van Woesik and Herrmann provided in the Appeal Brief only reveal the outside edge of the respective strips. Appellant replies that the illustrations provided are representative of the applied references and selected to provide reasonable clarity without needless redundancy. The Examiner's Answer further asserts that "employing a gable wedge to provide a sharp edge is well established in the art to improve the ease of cutting." Appellant asserts that the gable edge can only be provided for a sufficiently thick blade cross-section.

Although a blade design is consistent with one that removes a portion of the covering portion, such a configuration is recited in Appellant's claimed features, and not in van Woesik and Herrmann. Appellant asserts that there is no motivation to modify the blades of the applied references to include a gable edge because of the greater complexity in manufacturing. In addition, van Woesik and Herrmann provide blades that axially displace the sheath while cutting therethrough, thus negating any motivation to thicken the blade that would benefit from the advantages of a gable edge recited in claim 3.

Regarding claim 4, the Examiner's Answer asserts that van Woesik teaches the distal edge of the plate-like portion slants from first and second cross-section faces. Appellant respectfully disagrees, asserting that Fig. 12 of van Woesik shows a flat edge on the tip flanked by sloped sides to reduce the edge area. However, there is no teaching or suggestion by either van Woesik or Herrmann of the distal edge slanting from first to second cross-section faces of the plate-like portion, as recited in the claims, such as represented by a continuous wedge shape. Thus, the Examiner's Answer inaccurately characterizes the features of claim 4.

**IV. Conclusion**

For at least the reasons discussed above, Appellant respectfully submits that claims 1-4 are patentably distinguishable over the combination of van Woesik and Herrmann under 35 U.S.C. §103(a), contrary to the Examiner's Answer and the Final Office Action.

For the above reasons, Appellant respectfully requests this Honorable Board to reverse the rejections of the claims and to pass this application to issue.

Respectfully submitted,



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JAO:GWT/gwt

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